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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,132	12/14/2001	Carmen Flosbach	FA1043 US NA	8944
23906	7590	12/28/2004	EXAMINER	
E I DU PONT DE NEMOURS AND COMPANY LEGAL PATENT RECORDS CENTER BARLEY MILL PLAZA 25/1128 4417 LANCASTER PIKE WILMINGTON, DE 19805				FLETCHER III, WILLIAM P
ART UNIT		PAPER NUMBER		
		1762		
DATE MAILED: 12/28/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/017,132	FLOSBACH ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	William P. Fletcher III	1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 18 October 2004.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## **Disposition of Claims**

4)  Claim(s) 1-12 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5)  Claim(s) \_\_\_\_\_ is/are allowed.  
6)  Claim(s) 1-12 is/are rejected.  
7)  Claim(s) \_\_\_\_\_ is/are objected to.  
8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date .  
4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_ .  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_\_

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/18/2004 has been entered.

### *Response to Arguments*

2. Applicant's arguments filed in the above-mentioned submission, with respect to the rejection(s) set-forth in the Office action mailed 4/29/2004, have been fully considered and are persuasive. While the composition of Goodman may be used as a coating material (6:32-9:30), the only disclosure of surface repair is made in conjunction with the pre-preg embodiment (9:31-10:25). It is clear that the pre-preg is used to patch and repair structural damage to the underlying substrate and there is neither teaching nor suggestion of repair coating. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of George et al. (US 4,601,516 A) below.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Claim 1 recites “wherein...after removal of the at least one backing film and the remaining applied layer after removal of the backing film is the coating composition of step b)...”. This limitation is unclear as to what layers are being removed and what remains. Further, with respect to the limitation “the remaining applied layer”, there is insufficient antecedent basis for this limitation in the claim.

With respect to claim 11, the term “small” is a relative term which renders the claim indefinite. The term “small” is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. While applicant gives spot repair as an example of a small blemished area, there are no criteria for establishing the metes and bounds of this limitation. What may be a small repair for one artisan may be a large repair for another artisan having fewer resources.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 1, 2, 7, 8, and 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by George et al. (US 4,061,516 A).**

With respect to claims 1 and 2, George teaches a process for repairing coated substrate surfaces comprising, in succession: providing a blemished area to be repaired (1:44-49 and 2:50-62); providing a backing film coated on one side with a layer of a thermoplastic adhesive (2:44-

47); applying the backing film with its coated side onto the blemished area (3:1-3); supplying heat (thermal energy) to the coating (3:3-8); and removing the backing film (3:10-14).

Although this reference does not explicitly state that the thermoplastic adhesive is “an uncured or only partially cured coating layer of a thermally curable coating composition,” it is the examiner’s position that this is an inherent feature of a thermoplastic adhesive. Vargo et al. (US 6,428,887 B1) is cited here solely to establish this inherency (see MPEP § 2131.01). This reference teaches that thermoplastic adhesives are cured by heat — i.e., are thermally curable (9:44-57). By extension, since the thermoplastic adhesive is not otherwise heated before application of the hot roller, it is the examiner’s position that the adhesive is uncured. Lastly, it is the examiner’s position that, in George’s process, heat (thermal energy) proceeds from the hot roller, through the backing, to the adhesive in contact with the underlying substrate.

With respect to claim 7, George teaches that application of the patch proceeds under both heat and pressure (3:3-10).

With respect to claim 8, insofar as all heated objects emit IR radiation, the hot roller of George reads on applicant’s claimed infrared radiation emitter.

With respect to claim 10, insofar as it contacts the repair patch and insofar as applicant discloses a hot roller as an example of a contact heating means (spec., page 11), the hot roller of George reads on applicant’s claimed contact heating.

With respect to claim 11, insofar as applicant gives spot repair as an example of a “small blemished area” (spec., page 13) and George teaches spot repair (see above), this reference reads on applicant’s claimed repair of a small blemished area.

With respect to claim 12, insofar as George discloses repair of coatings during the commercial or large-scale manufacture of furniture (1:1-57), this reference reads on applicant's claimed industrial coating.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. **Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over George et al. (US 4,061,516 A), as applied to claim 1 above, in further view of Cheng et al. (US 4,762,674 A).**

George is applied here for the same reasons detailed above.

As noted above, this reference inherently teaches that the adhesive is uncured. Further, this reference teaches, as an example of the clear, thermoplastic acrylic lacquer adhesive

BORDEN KRYLON #1301 (2:43-47). This reference does not explicitly state that the uncured adhesive is tacky, *per se*.

Cheng teaches that KRYLON #1301 remains tacky if it is allowed to air dry for only a short period of time (7:10-13).

It would have been obvious to one of ordinary skill in the art to modify the process of George so as to apply the patch immediately after application of the adhesive. One of ordinary skill in the art would have been motivated to do so because George places no limitation on the time interval between the application of the adhesive to the repair patch and its subsequent use; the fair teaching of this disclosure being that the patch is ready for use *immediately* after application of the adhesive — at which point, Cheng teaches, the adhesive is still tacky.

**10. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over George et al. (US 4,061,516 A), as applied to claim 1 above, in further view of Vargo et al. (US 6,428,887 B1).**

George is applied here for the same reasons detailed above.

While this reference broadly teaches an (inherently thermally curable) thermoplastic adhesive, this reference does not explicitly state that the adhesive is free-radically polymerizable or polycondensation and/or polyaddition cross-linkable.

Vargo teaches that thermoplastic adhesives may be cured by free-radicals or chemical reactions (9:44-58). It is the examiner's position that such chemical reactions include polycondensation and polyaddition.

It would have been obvious to one of ordinary skill in the art to modify the process of George so as to utilize, as the thermoplastic adhesive, one of the common thermoplastic

adhesives in the art, which include free-radical-, polycondensation-, and polyaddition-cured adhesives. One of ordinary skill in the art would have been motivated by the desire and expectation of successfully providing an adhesive suitable to affix the repair patch to the substrate.

11. **Claim 6 is rejected under 35 U.S.C. 103(a) as unpatentable over George et al. (US 4,061,516 A), as applied to claim 1, in further view of Seymour (US 2,681,877 A).**

George is applied here for the same reasons detailed above.

This reference does not explicitly teach the use of a protective film on one or both sides of the repair patch.

Seymour teaches that the adhesive on an adhesive strip of material may be protected from contamination with dirt, grease, etc., by covering the adhesive with an easily strippable protective film (4:21-40).

Consequently, it would have been obvious to one of ordinary skill in the art to modify the process of George so as to protect the adhesive layer from contamination, as suggested by Seymour.

12. **Claim 9 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over George et al. (US 4,061,516 A).**

George is applied here for the same reasons detailed above. As noted with respect to claim 8, the hot roller of George emits IR radiation insofar as all heated objects do so.

Although this reference does not explicitly state that the IR radiation is in the wavelength range of 760 to 1200 nm, it is the examiner's position that this is an inherent feature of an IR radiation-emitting object. The definition of IR radiation (see attached entry from *Hawley's*

*Condensed Chemical Dictionary*) is cited here solely to establish this inherency (see MPEP § 2131.01). This reference teaches that IR radiation includes radiation from 0.78 microns (780 nm) to approximately 300 microns (300,000 nm), which is inclusive of the wavelength range claimed by applicant. Absent evidence to the contrary, it is the examiner's position that the IR radiation-emitting hot roller of George inherently emits radiation in the ranges taught by Hawley's and, consequently, applicant's claimed range.

Further, while George does not explicitly state that the IR radiation has an intensity within the claimed range, it is the examiner's position that, because George teaches all of applicant's other claimed materials and process steps, as well as applicant's desired outcome (i.e., a repaired coating), unless some critical process step(s) is/are missing, the process of George inherently has an intensity within the claimed range. In the alternative, it is the examiner's position that intensity of IR radiation output is a result-effective variable, effecting at least the degree of cure as well as the cure time of the adhesive. Consequently, absent clear and convincing evidence of unexpected results demonstrating the criticality of the claimed IR radiation intensity, it would have been obvious to one of ordinary skill in the art to modify the process of George so as to optimize the IR intensity by routine experimentation (see MPEP § 2144.05).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Fletcher III whose telephone number is (571) 272-1419. The examiner can normally be reached on Monday through Friday, 9 AM to 5 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P. Beck can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*WPF 12/23/2004*

William P. Fletcher III  
Examiner  
Art Unit 1762



BRET CHEN  
PRIMARY EXAMINER